

Appendix A

MITIGATION MONITORING PROGRAM

MITIGATION MONITORING PROGRAM

As the Lead Agency under the CEQA, the CSLC is required to adopt a program for reporting or monitoring regarding the implementation of mitigation measures for this project, if it is approved, to ensure that the adopted mitigation measures are implemented as defined in this EIR. This Lead Agency responsibility originates in Public Resources Code section 21081.6(a) (Findings), and the CEQA Guidelines sections 15091(d) (Findings) and 15097 (Mitigation Monitoring or Reporting).

MONITORING AUTHORITY

The purpose of a Mitigation Monitoring Program (MMP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. A MMP can be a working guide to facilitate not only the implementation of mitigation measures by the Project proponent, but also the monitoring, compliance and reporting activities of the CSLC and any monitors it may designate.

The CSLC may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities, and the California Department of Fish and Game (CDFG). The number of construction monitors assigned to the project will depend on the number of concurrent construction activities and their locations. The CSLC or its designee(s), however, will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CSLC must allow at least 60 days for adequate review time. When a mitigation measure requires that a mitigation program be developed during the design phase of the project, PG&E must submit the final program to CSLC for review and approval for at least 60 days before construction begins. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor assigned to each spread to ensure that appropriate agency reviews and approvals are obtained.

The CSLC or its designee will also ensure that any deviation from the procedures identified under the monitoring program is approved by the CSLC. Any deviation and its correction shall be reported immediately to the CSLC or its designee by the environmental monitor assigned to the construction spread.

ENFORCEMENT RESPONSIBILITY

The CSLC is responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to each construction spread. Any assigned environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CSLC or its designee.

MITIGATION COMPLIANCE RESPONSIBILITY

PG&E is responsible for successfully implementing all the Applicant Proposed Measures (APMs) and the Mitigation Measures (MMs) in the MMP, and is responsible for assuring that these requirements are met by all of its construction contractors and field personnel. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include detailed success criteria. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

GENERAL MONITORING PROCEDURES

Environmental Monitors. Many of the monitoring procedures will be conducted during the construction phase of the project. The CSLC and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with PG&E. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to each construction spread must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

Construction Personnel. A key feature contributing to the success of mitigation monitoring would be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures, will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between PG&E and any construction contractors.

Procedures to be followed by construction crews will be written into a separate document that all construction personnel will be asked to sign, denoting agreement.

- One or more preconstruction meetings would be held to inform all and train construction personnel about the requirements of the monitoring program.
- A written summary of mitigation monitoring procedures would be provided to construction supervisors for all mitigation measures requiring their attention.

GENERAL REPORT PROCEDURES AND PUBLIC ACCESS TO RECORDS

General Reporting Procedures. Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the relevant construction spread. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

Public Access to Records. The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CSLC or its designee on request.

MITIGATION MONITORING TABLE

The following sections present the mitigation monitoring tables for each environmental discipline. Each table lists the following information, by column:

- Impact (impact number and title);
- Mitigation Measure (includes APM and MM with summary text of the measure);
- Location (where the impact occurs and the mitigation measure should be applied);
- Monitoring/reporting action (the action to be taken by the monitor or Lead Agency);

- Effectiveness criteria (how the agency can know if the measure is effective);
- Responsible agency; and
- Timing (before, during, or after construction; during operation, etc.).

Mitigation Monitoring Program – Biological Resources

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|-------------------------------------|--|------------------|---|--|--------------------|--------------------------------|
| Applicant Proposed Measures: | APM BIO-1. Worker Environmental Awareness Program | Entire alignment | Verification of training attendance | Improves awareness and compliance with mitigation measures | CSLC | Before and during construction |
| | APM BIO-2. Protective Fencing | Entire alignment | Verification of protective fencing | Avoids inadvertent intrusion into sensitive resources | CSLC | During construction |
| | APM BIO-3. Wetland Protection | Entire alignment | PG&E consultation with the USFWS | Protection of wetland areas from project disturbance | USFWS | Before construction |
| | | | Observation of avoidance and preservation | Protection of wetland areas from project disturbance | CSLC | During construction |
| | APM BIO-4. Ensure No Western Pond Turtles are Injured or Killed | Bridge removal | Observation of avoidance or relocation | No Western Pond Turtles are injured or killed | CSLC | During bridge removal |
| | APM BIO-5. Survey for the Giant Garter Snake | Entire alignment | PG&E consultation with the USFWS | No Giant Garter Snakes are injured or killed | USFWS | Before construction |
| | | | Verification of construction activities only during GGS active season or as determined in consultation with the USFWS | No Giant Garter Snakes are injured or killed | CSLC | During construction |
| | APM BIO-6. Pre-construction Bird Surveys | Entire alignment | PG&E consultation with the CDFG and the USFWS | Avoids disturbance of nesting birds and raptors | CDFG USFWS | Before and during construction |
| | | | Verification of pre-construction surveys | Avoids disturbance of nesting birds and raptors | CSLC | During construction |
| | APM BIO-7. Burrowing Owl Surveys | Entire alignment | PG&E consultation with the CDFG | Avoids disturbance of burrowing owls | CDFG | Before and during construction |
| | | | Verification of pre-construction surveys | Avoids disturbance of burrowing owls | CSLC | Before and during construction |

Appendix A: Mitigation Monitoring Program

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|--|---|---|---|--|----------------|--------------------------------|
| | APM BIO-8. Avoid Elderberry Shrubs | Entire alignment | PG&E consultation with the USFWS | Avoids inadvertent damage to elderberry shrubs; provides mitigation for unavoidable damage | USFWS | Before and during construction |
| | | | Verification of buffer zones and avoidance; verification of mitigation ratios | Avoids inadvertent damage to elderberry shrubs; provides mitigation for unavoidable damage | CSLC | During construction |
| | APM BIO-9. Prepare a Wetland Mitigation Plan | Entire alignment | Verification of the wetland delineation | Protection of wetland areas from project disturbance | ACOE | Before construction |
| | | | Review and verification of Plan; observation of avoidance measures | Protection of wetland areas from project disturbance | CSLC | Before and during construction |
| | APM BIO-10. Wildlife Protection During Construction | Entire alignment | Observation of wildlife protection and avoidance measures | Avoids unnecessary disturbance to general wildlife | CSLC | During construction |
| | APM BIO-11. Conduct Tree Surveys | Entire alignment | Observation of tree trimming and removal activities | Consistent with County tree protection ordinances | CSLC | During construction |
| | APM BIO-12. Monetary Compensation to the USFWS | Stone Lakes National Wildlife Refuge | Agreement for monetary compensation | Offsets additional easement requirements | USFWS | Before construction |
| | | | Verification of compensation documentation | Offsets additional easement requirements | CSLC | Project completion |
| BIO-1: Potential Impacts to Vernal Pools and Vernal Pool Crustaceans | MM BIO-1. Application of Best Management Practices (BMPs) | Entire alignment | Verify application of BMPs | Minimizes potential for impacts to sensitive resources | CSLC | During construction |
| BIO-2: Potential Impacts to Migrating Fish Species | MM BIO-2. Implement the North Delta Construction Window | Mokelumne and Cosumnes River HDD and bridge removal | PG&E to confirm North Delta Construction window with NOAA Fisheries | Avoids impacts to migrating fish | NOAA Fisheries | Before Construction |
| | | | Verify construction is completed within prescribed window | Avoids impacts to migrating fish | CSLC | During construction |

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|--|--|------------------|--|--|-------------------|--------------------------------|
| BIO-3: Potential Impacts to California Tiger Salamanders | MM BIO-3. Daily Visual Clearance Surveys for California Tiger Salamanders | Entire alignment | Verification of surveys; observation of removal from worksite | Avoids injury or death of CTS | CSLC | Before and during construction |
| BIO-4: Potential Impacts to Western Pond Turtles | MM BIO-4. Pre-Construction Surveys for Western Pond Turtle | Entire alignment | Verification of pre-construction surveys | No Western Pond Turtles are injured or killed | CSLC | Before and during construction |
| BIO-5: Potential Impacts to Giant Garter Snakes | MM BIO-5. Pre-Construction Surveys for Giant Garter Snakes | Entire alignment | PG&E consultation with the USFWS | Avoids injury or death of GGS | USFWS | Before and during construction |
| | | | Verification of pre-construction surveys; observation of removal from worksite | Avoids injury or death of GGS | CSLC | Before and during construction |
| BIO-6: Potential Impacts to Tri-colored Blackbirds | MM BIO-6. Pre-construction Surveys for Tri-colored Blackbirds | Entire alignment | PG&E consultation with CDFG | Avoids disturbance of nesting Tri-colored Blackbirds | CDFG | Before and during construction |
| | | | Verification of pre-construction surveys; observation of buffer zones | Avoids disturbance of nesting Tri-colored Blackbirds | CSLC | Before and during construction |
| BIO-7: Potential Impacts to Great Egret, Great Blue Heron, and Double-crested Cormorant Rookeries | MM BIO-7a. Pre-Construction Breeding-Season Surveys | Entire alignment | Verification of pre-construction surveys | Establishes need for MM BIO-7b | CSLC | Before construction |
| | MM BIO-7b. Avoidance Measures | Entire alignment | Observation of avoidance of active nests | Avoids disturbance of Double-crested Cormorant Rookeries | CSLC | During construction |
| BIO-8: Potential Impacts to Trees within the Study Area | MM BIO-8. Additional Protection for Sensitive Trees | Entire alignment | Observation of buffer zones | Minimizes disturbance to oaks or landmark trees | CSLC | During construction |
| | | | Grading within drip line of oak trees to be authorized by Sacramento County | Minimizes disturbance to oaks or landmark trees | Sacramento County | During construction |

Mitigation Monitoring Program – Geology, Soils, Paleontology, and Mineral Resources

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|-------------------------------------|---|------------------|--|---|--------------------|---------------------|
| Applicant Proposed Measures: | APM GEO-1. Bridge Removal Work Plan | Bridge removal | Verification of work plan | Ensures stability of river banks during construction | CSLC | Before construction |
| | APM GEO-2. Drilling Plan | Entire alignment | Verification of drilling plan | Maximizes success of HDD | CSLC | Before construction |
| | APM GEO-3. Drilling Programs | Entire alignment | Observation of HDD drilling activities | Minimizes potential for inadvertent drilling fluid releases | CSLC | During construction |
| | APM PAL-1. Paleontology Mitigation Program | Entire alignment | Verification of mitigation plan and monitor qualifications; presence of qualified monitors on-site | Evaluates and recovers any potentially significant fossils | CSLC | During construction |

Mitigation Monitoring Program – Hydrology and Water Quality

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|------------------------------------|--|------------------|---|--|--------------------|---------------------|
| Applicant Proposed Measure: | APM WQ-1. Verify Well Locations | Entire alignment | Verification that well locations have been verified | Limits the effect that construction will have on local well production | CSLC | Before construction |

Mitigation Monitoring Program – Hazards and Hazardous Materials (includes Pipeline Risk of Upset)

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|--|---|------------------|--|--|--------------------|---------------------|
| Applicant Proposed Measures: | APM HAZ-1. Procedures for Encountering Contamination | Entire alignment | Observe construction activities for compliance | Minimizes potential for release of pre-existing contamination | CSLC | During construction |
| | APM HAZ-2. Fire Protection Plan | Entire alignment | Observe construction activities for compliance | Minimizes personal injury, death, or property damage from fire during construction | CSLC | During construction |
| HAZ-1: Risk of Serious Injuries and Fatalities Due to Project Upset | MM HAZ-1a. Reduce the Potential for Serious Injuries and Fatalities. | Entire alignment | Observe construction activities for compliance | Minimizes personal injury, death, or property damage from pipeline upset | CSLC | During construction |
| | MM HAZ-1b. Implement Operation and Maintenance (O&M) Plan. | Entire alignment | Verification of O&M Plan | Minimizes personal injury, death, or property damage from pipeline upset | CSLC | Prior to operation |

Mitigation Monitoring Program – Air Quality

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|---|--|-------------------------|---|--|--------------------|--------------------------------|
| Applicant Proposed Measures: | APM AQ-1. Project Wide Fleet-Average NOx and Particulate Reduction | Entire alignment | PG&E submits Plan for SMAQMD approval | Exhaust emissions are minimized | SMAQMD | Before construction |
| | | | Review construction vehicle documentation | Exhaust emissions are minimized | CSLC | Before construction |
| | APM AQ-2. Off-Road Construction Equipment Inventory | Entire alignment | Review construction equipment inventory | Exhaust emissions are minimized | CSLC | Before and during construction |
| | APM AQ-3. Visual Surveys for Opacity | Entire alignment | Review survey documentation | Visual emission standards are met | CSLC | During construction |
| | APM AQ-4. Emission Reduction Credits | Entire alignment | This APM has been superseded by MM AQ-1 | N/A | N/A | N/A |
| | APM AQ-5. Route Control Valve Fugitive Emissions to the Distribution System | Control valve locations | Review construction drawings | Greenhouse gas emissions (methane) are reduced | CSLC | During construction |
| AQ-1. Construction NOx Emissions | MM AQ-1. Air Quality Mitigation Fee | Entire alignment | PG&E mitigation fee paid to SMAQMD | Supports regional air quality improvement | SMAQMD | Before construction |
| | | | Review mitigation fee documentation | Supports regional air quality improvement | CSLC | Before construction |

Mitigation Monitoring Program – Traffic and Transportation

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|--|---|------------------|--|---|-----------------------|---------------------|
| Applicant Proposed Measures: | APM TRA-1. Traffic Control Plan | Entire alignment | PG&E coordination with SCDOT | Reduces effects of project on local traffic | SACDOT | Before construction |
| | | | Review Traffic Control Plan | Reduces effects of project on local traffic | CSLC | Before construction |
| | APM TRA-2. Reduce Potential for Roadway Damage | Entire alignment | PG&E coordination with SCDOT | Reduces potential for roadway damage | SACDOT | Before construction |
| | | | Observe construction activities | Reduces potential for roadway damage | CSLC | During construction |
| TRA-1: Work within Public Roadways would Disrupt Traffic Flow | MM TRA-1. Traffic Control Plans | Entire alignment | PG&E coordination with Sacramento County PWD | Reduces effects of project on local traffic | Sacramento County PWD | Before construction |
| | | | Review Traffic Control Plan | Reduces effects of project on local traffic | CSLC | Before construction |

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|---|--|------------------|---|---|------|---------------------|
| TRA-2: Work within Private Roadways and Driveways would Disrupt Residential Access | MM TRA-2. Private Party Access | Entire alignment | Verify pre-disturbance notice to residents; verify alternate access agreement with property owner | Reduces inconvenience to local residents | CSLC | During construction |
| TRA-3: Construction Activities could Disrupt Emergency Access | MM TRA-1. Traffic Control Plans | Entire alignment | Review Traffic Control Plan | Reduces effects of project on local traffic | CSLC | Before construction |

Mitigation Monitoring Program – Noise

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|---|--|-----------|-------------------------------------|--|--------------------|---------------------|
| Applicant Proposed Measures: | APM NOI-1. Coordinate with Residences | HDD areas | Verify coordination with residences | Provides advance notice of nighttime noise | CSLC | During construction |
| NOI-1: Nighttime Construction Activities would Disturb Nearby Residences | MM NOI-1a. Restrict Hours of Construction | HDD areas | Observe construction schedule | Avoids nighttime noise where feasible | CSLC | During construction |
| | MM NOI-1b. Noise Reduction Plan | HDD areas | Plan submittal to Sacramento DERA | Reduces severity of nighttime noise | Sacramento DERA | Before construction |
| | | HDD areas | Observe noise reduction measures | Reduces severity of nighttime noise | CSLC | During construction |

Mitigation Monitoring Program – Cultural Resources

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|---|---|------------------|--|--|--------------------|-------------------------------------|
| Applicant Proposed Measures: | APM CUL-2. Archaeological Monitoring and Data Recovery Plan | Entire alignment | Verify AMDRP; observe construction activities for compliance | Reduces potential for damage to cultural resources | CSLC | Before and during construction |
| | APM CUL-4. Unanticipated Discovery of Human Remains | Entire alignment | Observe construction activities for compliance | Reduces potential for damage to human remains | CSLC | During construction |
| CUL-1: Demolition of an Historic Resource | MM CUL-1: Document the Pipeline Suspension Bridge to Historic American Engineering Record (HAER) Standards | Bridge removal | PG&E submits HAER document to NCIC/CHRIS | Preserves historic record | NCIC/CHRIS | Before suspension bridge demolition |
| | | | Verify historic documentation | Preserves historic record | CSLC | Before suspension bridge demolition |
| CUL-2: Unanticipated Discovery of Cultural Resources | MM CUL-2. Unanticipated Cultural Resource Discovery Procedures | Entire alignment | Observe construction activities | Reduces potential for damage to unknown cultural resources | CSLC | During construction |

Mitigation Monitoring Program – Recreation

| Impact | Mitigation Measure | Location | Monitoring / Reporting Action | Effectiveness Criteria | Responsible Agency | Timing |
|---|--|------------------|--|--|--------------------|---------------------|
| REC-1: Noise Effects on Wilderness Areas | MM REC-1. Construction Timing | Entire alignment | PG&E consultation with the USFWS and the BLM | Reduces noise impacts to recreational uses | USFWS BLM | Before construction |
| | | | Verify construction schedule | Reduces noise impacts to recreational uses | CSLC | During construction |
| REC-2: Bridge Removal Effects on Recreational Boating | MM REC-1. Construction Timing | Entire alignment | Verify construction schedule | Reduces noise impacts to recreational uses | CSLC | During construction |
| | MM REC-2. Posting of Signs Indicating Bridge Removal Construction Activities | Bridge removal | Verify notification and signs | Minimizes impacts to recreational boaters | CSLC | During construction |